Amendments to the Claims

Please amend the claims as follows:

1. (Canceled)

2. (Previously Presented) A method including:

detecting a thoracic impedance signal associated with a portion of a subject's thorax; and

providing a therapy to the subject's heart based at least in part on a baseline portion of the detected thoracic impedance associated with a fluid shift away from the thorax.

3. (Original) The method of claim 2, further including attenuating a high frequency component of the thoracic impedance signal.

4. (Currently Amended) A method including:

detecting a thoracic impedance signal associated with a portion of a subject's thorax; and

providing a therapy to the subject's heart based at least in part on the detected thoracic impedance, including increasing a rate of pacing stimuli based at least in part on an increase in the baseline portion of the thoracic impedance, the baseline portion associated with a fluid shift away from the thorax.

5. (Previously Presented) The method of claim 2, further including detecting a motion of the subject and providing the therapy to the subject's heart based at least in part on the detected motion of the subject.

6. (Previously Presented) The method of claim 2, further including detecting a breathing of the subject and providing the therapy to the subject's heart based at least in part on the detected breathing.

7. (Original) The method of claim **6**, in which providing the therapy to the subject's heart includes adjusting a rate of delivery of pacing stimuli based on frequency components of the thoracic impedance associated with fluid shift away from the thorax and associated with the subject's breathing.

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8. (Previously Presented) The method of claim **2**, in which providing the therapy to the subject's heart includes providing a therapy from the group consisting essentially of:

(a) increasing the subject's heart rate to a predetermined fixed value in response to an increase in detected thoracic impedance at a frequency associated with a fluid shift away from the thorax;

(b) increasing the subject's heart rate by a predetermined fixed value in response to an increase in detected thoracic impedance at a frequency associated with a fluid shift away from the thorax;

(c) adjusting an applied energy for modifying a heart rate or contractility in response to an increase in detected thoracic impedance at a frequency associated with a fluid shift away from the thorax; and

(d) providing a drug to the subject in response to an increase in detected thoracic impedance at a frequency associated with fluid shift away from the thorax.

9. (Original) A method including:

detecting a change in a thoracic impedance signal associated with a subject's thorax and including a thoracic fluid shift signal having a frequency component that is less than or equal to a cutoff frequency value that is between 0.01 Hz and 0.5 Hz inclusive; and

increasing a rate of delivery of pacing stimuli based at least in part on a detected increase in a baseline portion of the thoracic impedance signal.

10. (Original) The method of claim **9**, in which the cutoff frequency value is approximately 0.1 Hz.

11. (Original) The method of claim **9**, further including detecting a motion of the subject and in which increasing the rate of delivery of pacing stimuli includes also basing the increase on the detected motion of the subject.

12. (Original) The method of claim **9**, in which increasing the rate of delivery of pacing stimuli includes also basing the increase on a frequency component of the thoracic impedance associated with the subject's breathing.

13. (Original) A method including:

detecting both a hypotension associated with a change in a subject's posture and a hypotension that is not associated with a change in the subject's posture; and

providing a therapy to the subject's heart based at least in part on the detected hypotension.

14. (Original) The method of claim **13**, in which providing the therapy includes increasing a heart rate in response to the detected hypotension.

15. (Original) A cardiac rhythm management system, including:

first and second electrodes configured for association with a portion of a subject's thorax;

a thoracic signal detection module, coupled to the first and second electrodes for receiving a thoracic impedance signal and including an averager/lowpass filter that obtains a baseline portion of the thoracic impedance signal that is associated with a fluid shift away from the thorax; and

means for performing a function of providing therapy to the subject's heart based on the baseline portion of the thoracic impedance signal.

16. (Original) A cardiac rhythm management system, including:

first and second electrodes configured for association with a portion of a subject's thorax;

a thoracic signal detection module, coupled to the first and second electrodes for receiving a thoracic impedance signal and including an averager/lowpass filter that obtains a

baseline portion of the thoracic impedance signal that is associated with a fluid shift away from the thorax; and

a pacing therapy output circuit providing therapy to the subject's heart based on the baseline portion of the thoracic impedance signal.

17. (Original) A cardiac rhythm management system, including:

first and second electrodes configured for association with a portion of a subject's thorax;

means, coupled to the first and second electrodes for receiving a thoracic impedance signal, for performing the function of obtaining a baseline portion of the thoracic impedance signal that is associated with a fluid shift away from the thorax; and

a pacing therapy output circuit providing therapy to the subject's heart based on the baseline portion of the thoracic impedance signal.

18. (Previously Presented) A cardiac rhythm management system, including:

first and second electrodes configured for association with a portion of a subject's thorax;

a thoracic signal detection module, coupled to the first and second electrodes;

third and fourth electrodes configured for association with a portion of a subject's heart;

a pacing therapy output module, coupled to the third and fourth electrodes; and

a pacing stimuli rate controller, coupled to the thoracic signal detection module for receiving a thoracic impedance signal including a baseline signal component associated with a fluid shift away from the thorax, the controller also coupled to the pacing therapy output module for adjusting the rate of delivery of pacing stimuli based at least in part on the portion of the thoracic impedance signal associated with the thoracic fluid shift.

19. (Original) The system of claim **18**, in which at least one of the third and fourth electrodes is the same electrode as one of the first and second electrodes.

20. (Original) The system of claim **18**, further including a thoracic test signal generator configured for association with the thorax for providing energy to the thorax for detecting thoracic impedance.

21. (Previously Presented) The system of claim **18**, in which the rate controller further includes a lowpass filter coupled to the thoracic signal detection module.

22. (Previously Presented) The system of claim **21**, in which the lowpass filter obtains the baseline portion of the thoracic impedance signal that is associated with a fluid shift away from the heart.

23. (Original) The system of claim **22**, in which the lowpass filter attenuates a breathing portion of the thoracic impedance signal.

24. (Original) The system of claim **22**, in which the lowpass filter attenuates a cardiac stroke portion of the thoracic impedance signal.

25. (Original) The system of claim **21**, in which the lowpass filter attenuates a component of the thoracic impedance not associated with the thoracic fluid shift.

26. (Original) The system of claim **21**, in which the lowpass filter includes an effective cutoff frequency that is between 0.01 Hz and 0.5 Hz.

27. (Original) The system of claim **26**, in which the lowpass filter includes a cutoff frequency that is approximately equal to 0.1 Hz.

28. (Original) The system of claim **18**, in which the controller includes a blending module for adjusting the rate of delivering pacing stimuli based on thoracic fluid shift and at least one of:

(a) a breathing by the subject; and

(b) a motion of the subject.

29. (Previously Presented) A cardiac rhythm management system, including:

first and second electrodes configured for association with a portion of a subject's thorax;

a thoracic signal detection module, coupled to the first and second electrodes;

thoracic test signal generator configured for association with the thorax for providing energy to the thorax for detecting thoracic impedance;

third and fourth electrodes configured for association with a portion of a subject's heart;

a pacing therapy output module, coupled to the third and fourth electrodes; and

a pacing stimuli rate control module, coupled to the thoracic signal detection module for receiving a thoracic impedance signal, the rate control module including a lowpass filter for distinguishing a baseline thoracic fluid shift signal from another variation in thoracic impedance, the rate control module also coupled to the pacing therapy output module for adjusting the rate of delivery of pacing stimuli based at least in part on the thoracic fluid shift signal.

30. (Previously Presented) A cardiac rhythm management system, including:

means for detecting a thoracic impedance;

first and second electrodes, configured for association with a portion of a subject's heart;

a pacing therapy output module, coupled to the first and second electrodes; and

a pacing stimuli rate control module, coupled to the means for detecting thoracic impedance and the pacing therapy output module, the rate control module adjusting a rate of delivery of pacing stimuli based at least in part on a baseline portion of the thoracic impedance associated with thoracic fluid shift away from the thorax.

31. (Previously Presented)The method of claim **4**, further including attenuating a high frequency component of the thoracic impedance signal.

32. (Previously Presented) The method of claim **4**, further including detecting a motion of the subject and providing the therapy to the subject's heart based at least in part on the detected motion of the subject.

33. (Previously Presented) The method of claim **4**, further including detecting a breathing of the subject and providing the therapy to the subject's heart based at least in part on the detected breathing.

34. (Previously Presented) The method of claim **33**, in which providing the therapy to the subject's heart includes adjusting a rate of delivery of pacing stimuli based on frequency components of the thoracic impedance associated with fluid shift away from the thorax and associated with the subject's breathing.

35. (Previously Presented) The method of claim **4**, in which providing the therapy to the subject's heart includes providing a therapy from the group consisting essentially of:

(a) increasing the subject's heart rate to a predetermined fixed value in response to an increase in detected thoracic impedance at a frequency associated with a fluid shift away from the thorax;

(b) increasing the subject's heart rate by a predetermined fixed value in response to an increase in detected thoracic impedance at a frequency associated with a fluid shift away from the thorax;

(c) adjusting an applied energy for modifying a heart rate or contractility in response to an increase in detected thoracic impedance at a frequency associated with a fluid shift away from the thorax; and

(d) providing a drug to the subject in response to an increase in detected thoracic impedance at a frequency associated with fluid shift away from the thorax.